

# Claims

[c1] What is claimed is:

1.A method of setting a transfer function of an adaptive filter, the adaptive filter being used for processing an audio signal, the method comprises:

(a)setting a first, a second, and a third pole;

(b)setting a first zero without resting upon the audio signal, wherein a real part of the first zero is a negative value and an imaginary part of the first zero is a positive value;

(c)setting a second zero having a real part corresponding a positive value and an imaginary part corresponding to a negative value; and

(d)setting a third zero according to a key shifting associated with the audio signal.

[c2] 2.The method of claim 1, wherein the first, the second, and the third poles all correspond to a zero value.

[c3] 3.The method of claim 1, wherein the third zero corresponds to a real negative value.

[c4] 4.The method of claim 3, wherein the third zero is adjusted to increase its absolute value while key of the au-

dio signal is sharpened.

- [c5] 5.The method of claim 3, wherein the third zero is adjusted to decrease its absolute value while key of the audio signal is flattened.
- [c6] 6.The method of claim 1, wherein the first and the second zeros are a pair of complex conjugates.
- [c7] 7.The method of claim 1, wherein the adaptive filter is a low-pass filter.
- [c8] 8.The method of claim 1, wherein in step (c), the second zero is set without resting upon the audio signal.
- [c9] 9.A device for implementing the method of claim 1.